CYLINK

March 17, 1995

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Mr. William F. Caton
Acting Secretary
Office of the Secretary
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

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Re: ET Docket No. 94-32
Allocation of Spectrum Below 5 GHZ Transferred from Government Use

Dear Mr. Caton:

Cylink Corporation ("Cylink") respectfully submits the following comments on the above Referenced Second Notice of Proposed Rulemaking:

Cylink is a pioneer in the commercial application of spread spectrum technologies, manufacturing and marketing over forty digital modem products world-wide in all three currently authorized ISM bands. Both through its membership in the Part 15 Coalition and in its separate filings, Cylink has participated actively in proceedings concerning use of and access to the radio spectrum by Part 15 technologies.

Cylink commends the Commission for its decision to decline to introduce licensed radio services into the 2402 - 2417 MHZ band and to provide the continued availability of this band for Part 15 equipment and services without being subject to auction proceedings. The Commission has acknowledged the very substantial benefits to consumers and the economy gained by the innovative applications and significant investment made by the Part 15 community, all of which have been enabled by the Commission's incubation of the industry through previous actions. This success continues to gain momentum, driven by increasing bandwidth needs of new forms of information databases and the ever changing requirements for easily deployable links for low cost access to private and public information resource networks and information centers.

Cylink therefore vigorously supports the position of the Part 15 Coalition in its Comments to this proceeding, that spread-spectrum modulation should be fully usable in the 24.0 - 24.250 GHz band, and Cylink urges the permanent allocation of frequencies in various regions of the radio spectrum for unlicensed technologies. Cylink also strongly agrees with the need to create a "Part 16," as advanced by NTIA and the request for comments from the Commission, to govern use of the proposed "unlicensed bands."

The economic cost pressures on educational and health care institutions of all types are placing demands for resource sharing of information materials and records among different facilities in geographical communities. Hence, continuous relocation of high-speed communications paths and efficient re-use of spectrum within a physical geographic area provides the opportunity for service best solved by unlicensed spread-spectrum equipment.

Educational materials, health care records, and commercial documents are making increasing use of high resolution digital graphics and sound clips, digitized images, multimedia reference encyclopedic data and multiple hyperspace-linked information bases. Common Carrier facilities, the Internet, and NII implementations are being expanded to offer high bandwidth long distance services to accommodate delivery

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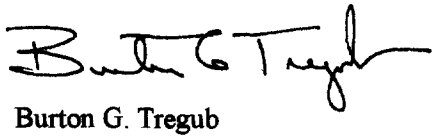
of this information. Flexible and easily deployable unlicensed spread spectrum "last mile" communication links will complete the solution for meeting public needs and providing public benefits of these new services. Equally, availability of the additional spectrum required to meet these needs will stimulate a new phase of development investment and product manufacturing, create new jobs and establish another round of digital radio leadership in the world-wide export of U.S. Part 15 spread spectrum technology.

For reliable provision of services at 24 GHz in short-to-medium range community network applications within most climatic regions, the FCC must consider the need for higher total radiated power for spread spectrum modulation and apply the Part 15 spread spectrum technical rules permitting maximum transmitter power of one watt. Similarly, specifying that services will be for fixed point-to-point operations enables the use of narrow beamwidth highly directional high-gain antennas. Eliminating the restriction on antenna gain will yield significantly higher transmission capacities and serviceable distances than can be achieved with non-directional antennas. This will maximize frequency reuse and economy of spectrum in every geographic area. Such antenna usage will also permit proper power control and spectrum ecology practices to minimize interference between different services and therefore stimulate competitive facilities within communities.

Cylink supports requiring professional installation for Part 15 spread spectrum devices with EIRP's exceeding 6dbW at the 24.0 - 24.250 GHz band. Cylink's actual marketplace experience demonstrates that these Part 15 spread-spectrum devices will be path-engineered and custom installed in educational, commercial, institutional and industrial environments to supply essential communications services. The user's concern for performance and the experience of a professional installer responsible for meeting appropriate safety and construction standards provide the appropriate protection and assurances to best serve public and community interests.

In summary, Cylink agrees with the Part 15 Coalition in applauding the Commission's actions to serve public interests through explicit recognition of the importance of Part 15 services, and urges the Commission to extend the Part 15 regulations to the 24.0 - 24.250 GHz band for spread-spectrum operations to meet the new needs for unlicensed wide-band information services.

Sincerely,



Burton G. Tregub
Vice -President
Strategic Programs
Cylink Corporation